

Engineering and Operations Workgroup Study Plans

Study #7: Oroville Reservoir Cold
Water Pool Evaluation

November 16, 2001

Goal

- Quantify the availability of the cold-water pool in Oroville Reservoir for use in temperature control in the Feather River
- Information useful for:
 - Oroville Reservoir temperature modeling
 - Setting reasonable temperature goals in Lower Feather River
 - Cold water pool management

Task 1 – Modify USBR model as required

- Review calibration of existing model using existing data
- Add output of reservoir temperature profile at intake for each month

Task 2 – Perform the model runs

- Select appropriate 2000 and 2020 PROSIM simulations as close to the initial CALSIM II benchmark simulations as possible.
- Run the temperature simulation to get reservoir temperature profiles

Task 3 – Analyze the results

- Extract profiles from output
- Determine cold-water pool availability by month
- Determine probability of running out of cold water in any given year

Task 4 – Write final report

- Write report of finding including:
 - Document all assumptions
 - Document process followed
 - Derived availability of Oroville cold water pool

Product

- Derived availability of Oroville cold water pool
- Information on ability of Oroville Thermalito operations to provide “reasonable” control of Feather River temperature